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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,389

10/20/2003

Mitsuhide Takamura

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NEW YORK, NY 10112

EXAMINER

KUMAR, RAKESH

ART UNIT

PAPER NUMBER

3654

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/688,389

Applicant(s)

TAKAMURA, MITSUhide

Examiner

Rakesh Kumar

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/27/2006 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,6-9,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto (US 6,963,722) in view of Limbach (US 4,905,979).

Referring to claim 1. Matsumoto discloses a sheet processing apparatus having a offset mounting means comprising:

a sheet conveying means (rollers including 78,79,80,118 and 415) for conveying sheets;

first loading means (421X) for loading a sheet bundle comprising a plurality of sheets conveyed by the sheet conveying means (rollers including 78,79,80,118 and 415);

first (412A) and second (412B) lateral aligning means (412; Figure 4 and 7) for aligning opposite side edges of the sheet bundle loading on the first loading means (421X) in a direction perpendicular to a sheet conveying direction by moving between retreat positions (when member 412A and 412B are extended to contact S6 and S7; Figure 7) out of contact with the sheet bundle and lateral aligning positions (position aligning the sheets) in contact with the sheet bundle;

stapling means (419) for performing a stapling treatment with respect to a sheet bundle aligned by the first and second lateral aligning means (412);

sheet bundle conveying means (421; Figure 4) for conveying a sheet bundle stapled by the stapling means (419);

second loading means (411) for loading sheet bundles conveyed by the sheet bundle conveying means (421); and

loading position control means (401; Col 11 line 52-56) for controlling the times at which the first (412A) and second (412B) lateral aligning means move from their aligning positions to their retreat positions for each sheet bundle in loading sheet bundles to be loaded onto the second loading means (411) to displace the loading

positions (Col 11 lines 37- 60) on the second loading means (411) of succeeding sheet bundles.

Matsumoto does not disclose the sheet aligning displacement along the sheet conveying direction.

Limbach discloses a device for stacking sheet material (Figure 1-3) wherein sheet bundles (30) are loaded onto a loading means (11) to displace the loading positions on the loading means (11) of succeeding sheet bundles (see positions of bundles 19-23) from each other along the sheet conveying direction (Z).

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the teachings of Matsumoto to include an apparatus to displace successive sheet bundles exiting from the apparatus in a sheet conveying direction as taught by Limbach because the size of the second loading means could be made smaller in the lateral direction and elongated in the conveying direction.

Referring to claim 2. Matsumoto discloses a sheet processing apparatus 10, wherein the second loading means (411) is disposed below the first loading means (421X; Figure 4).

Referring to claim 6. Matsumoto in view of Limbach does not specifically disclose the displacement of successive sheet bundles in order to prevent the stapling positions of the sheet bundles from being superimposed on each other.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Matsumoto in view of Limbach would result in the staples positioned on a stack also being successively displaced as the bundles are displaced and eliminate superimposing the staples onto each other thus reducing warping of the bundles as the stack grows. (See Mandel US 5,289,251; Figure 1; the stapled bundle sheets are misaligned).

Referring to claim 7. Matsumoto discloses a sheet processing apparatus 10, further comprising longitudinal alignment means (stopper plate; 418; Figure 4) for aligning a sheet bundle loaded on the first loading means (421X) in the sheet conveying direction.

Referring to claim 8. Matsumoto discloses a sheet processing apparatus 10, wherein a sheet hold down means (420) is used for holding down a sheet bundle loaded on the second loading means (411).

Matsumoto does not disclose a sheet hold down means (420) disposed on the first loading means (421X).

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the teachings of Matsumoto in view of Limbach to include a hold down member disposed on the first loading means (421X) because the laterally and longitudinal alignment of the sheets can be maintained as the stapler means binds the sheet bundle together.

Referring to claim 9. Matsumoto discloses a sheet processing apparatus 10, wherein the sheet conveying means (rollers including 78,79,80,118 and 415) and the sheet bundle conveying means (421) are driven by a different driving source (Figure 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Limbach to include a belt driven mechanism such that both the sheet conveying means and the sheet bundle conveying means are driven by a single driving source linked together by tension belts because it would reduce the number of driving motors required and thus reduce cost.

Referring to claim 13. Matsumoto discloses a sheet processing apparatus 10, comprising full load detecting means (423 and S10) for detecting the full load state of sheet bundles (P) on the second loading means (411; Col. 12, line 52-59).

Regarding claim 14. The rotation of the sheet bundle conveying means (421) is controlled as to when the sheet bundle is ready to be moved to the second loading means (411) thus the speed of the sheet bundle conveying means is controlled by a controller.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Limbach as applied to claim 9 above, and further in view of Mandel (US 5,289,251).

Referring to claims 10 and 11. Mandel discloses a copier printer apparatus (Figure 1) wherein a sheet bundle conveying means (93 and 94) is a pair of rollers comprising an upper roller (93) and a lower roller (94) and wherein the sheet bundle conveying means (93 and 94) can be switched between separation and nipping (Col 12 lines 44-53 and Col 13 line 15-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Limbach to include two separate rollers comprising a sheet bundle conveying means that can be switched between separation and nipping as taught by Mandel because the upper roller could be moved out of the way as the sheet are compiled onto the first loading means and thus reducing the longitudinal length of the apparatus.

Claims 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view Limbach and Mandel as applied to claim 10 above, and further in view of Fukatsu (US 6,382,614).

Referring to claim 12. Fukatsu discloses an apparatus wherein the sheet bundle conveying means (11 and 12; Figure 1) is a pair of rollers comprising an upper roller (11) and a lower roller (12), and wherein the sheet bundle conveying means can be switched between separation (see position of roller 11 and 12; Figure 1) and nipping

(see position of roller 11 and 12 in Figure 6; Col. 5, line 8-57). Rollers (11 and 12; Figure 1) are positioned in a staggered position when the rollers are separated.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Limbach and Mandel to include use a sheet bundle conveying means as taught by Fukatsu comprising a upper roller and a lower roller, which engage and disengage the sheet bundle. Thus, making the conveying means more compact and achieving a reduction in production cost.

Response to Arguments

Applicant's arguments with respect to claim 1,2 and 6-14 have been considered but are moot in view of the new ground(s) of rejection. See rejection above.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kremers (US 5,007,625) discloses tray (106) moved to offset sheet bundles.

Chung (6,231,039) discloses zigzag stacking to prevent alignment of staples in a stack.

Watanabe (5,447,298) disclose sheet bundle holding members (446).

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Endo (6,357,743) disclose offsetting of sheet bundle by moving members (51A and B).

Muramatsu (US 5,128,762) disclose separation of sheet bundles in conveying direction.

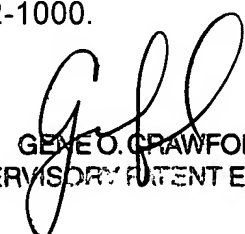
Mandel (US 5,098,074) disclose retaining fingers (77).

Matsumura (US 5,848,325) discloses moving loading tray to create different stacking patterns.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER

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RK

December 28, 2006